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Emerging Markets Queries in Finance and Business

The uncertainty of using Web 2.0 Technologies in E-Government development. Romania's Case

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Abstract

This paper aims to analyze the degree in which Web 2.0 related technologies are used in the Romanian local public administration. We have mirrored, on the one hand, the positive connotation unanimously credited to ICT technologies and, on the other hand, the blames of bureaucracy and enclosure traditionally addressed to local public agencies (normally regarded as non-innovator). Starting from this apparent set, we have analyzed the modification of ICT technologies brought to the 41 City Halls which are now present virtually, focusing on the use of Web 2.0 technologies at the year 2012 level. The importance of the analyzed web-pages derives from the width of their target audience: they are addressed, directly or indirectly (indirect estimates include minors), to approximately 7,872,986 people, which amounts to 37% of the total population of Romania. In completing this study, the used research methods were observation, desk review and open interview. The main scientific aim is to conduct the analysis of the theoretical assumptions leading up to changing technological trends in the development of the Romanian public administration, based on own elaborated knowledge's from research field, as well as an empirical testing of the Web 2.0 presence of the Romanian City Halls.

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1. Introduction

The latest advances in Information and Communication Technologies (ICT) have contributed to the development of new ways of interaction between governments and citizens. Governments are spreading using

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ICT, in particular Internet or web based networks, to provide better services to citizens, businesses, employees and nongovernmental organizations.

In an era of financial downpour, increasingly less time is available to us. The new possibilities offered by Information and Communication Technologies give governments the opportunity to rethink the strategies and methods used to provide services to citizens and businesses. In a continuously changing world, the state must admit to the importance of fulfilling new enhanced needs and expectations of citizens – see also Radu, 2013, Țugui, Șiclovă, 2013, Țugui and Frâncu, 2013, as opposed to the reality of reduced budgets. Similar to business organizations, City Halls that wish to strengthen their position in the relationship with the citizens may not ignore process improvement. Scholarship in the field is not as robust as we would like it to be; most articles focus on the positive impacts of eGovernment with no mention of difficulties or misconceptions, inherent in the current hostile financial climate.

According to Gartner Research, on average, \$8 out of every \$10 spent in IT is “dead money” – not contributing directly to business change and growth. It must be acknowledged that despite important advances in recent years, the potential of eGovernment in developing countries remains largely unexploited. This is so even with the promising prospect of ICT offering considerable support to sustainable development in eGovernment. Different technological, human, collaborative and organizational factors in different countries require ever more focused studies and adequate new approaches to follow. It is not easy to elaborate an eGovernment framework: requirements and circumstances differ from country to country and often mere improvisations are being used.

In most cases, when governments talk about technology, they lack a strategy. We must admit that current eGovernment standards focus mostly on solving interoperability and compatibility related technical problems. Furthermore, the legal system has not yet been fully updated. In order to develop strong eGovernment systems, improvements must be done simultaneously in both developed and developing countries.

Developing high quality eGovernment applications is to be addressed through a model based on understanding citizen perception and expectations. In a “big Europe”, eGovernment systems are needed in order to support universal sharing of resources and free cross-system movement of citizens. In line with this direction, technical standards are an issue far down the road from the initial minimum requirements stage of development.

What role have eGovernment systems been playing in the governmental response to the financial crisis? How does government action directly or indirectly impact the economic recovery? Enhanced transparency should be a priority in rebuilding citizens’ trust. It is also an opportunity to accelerate implementation of eGovernment systems. Moreover, governments are scrutinizing resource sharing possibilities more closely, e.g. services, employee competences and skills, technical platforms, and infrastructure solutions. In conclusion, though many OECD countries report unchanged priorities, the common message is that existing e-Government strategies and action plans target lagging efficiency and effectiveness as well as the possibility of delivering coherent and individualized services to citizens and businesses – see also the European Journal of ePractice, 2011.

2. Public Administration in the information society - from bureaucracy to network through communication and feedback

One of the fundamental dimensions of the information society lies in its politico-administrative side, which is the manner in which public bodies streamline their citizen-related activity and the securement of democracy in the digital era - see also Rotar and Todoran, 2005, Ghilic-Micu and Stoica, 2002. The Romanian Government’s Strategy to advancing the IT sector states that public administration is the largest information provider and user. According to Filip and Grama, 2003, public administration is the main link and, implicitly,

the central component to structuring and leadership in society, yclept to provide a favorable framework to community development and to render diversified and thorough bred public services to citizens.

Romanian public administration is in the midst of a tortuous ongoing modernization and restructuring process, so as to align itself, from an ICT standpoint, to EU recommendations, published in papers such as Digital Agenda for Europe (one of seven lead initiatives of the Europe 2020 Strategy, aimed at shaping ICT's role as the primary engine to attaining the 2020 targets). Public sector employees need to adapt to requirements on the Agenda to develop digital competences and inclusion, by drawing their services near to citizens and by responding to the above mentioned efficiency, democracy and transparency objectives. Although, this modernization process commenced as early as 1989 on the neck of the revolution (amounting to a history of over 20 years), the following setbacks linger on (as identified by Boştinaru, 2009, Andrei, Porfiroiu, Porfiroiu, 2010, Brătianu, 2011):

- Lack of interest and close-mindedness;
- Low percipience to citizen and partner response;
- Failure to harness recent technological advances;
- Insularism, in duration- employees want in creativity and out-of-the-box thinking;
- Deficiencies in engaging and employing experts.

3. Web 2.0 technologies - the facilitator of Romanian public administration renewal

In our opinion, the progress of the Romanian public administration on the digital road could be strongly stimulated, even under the conditions of the current crisis, by the availability of the 2.0 technology in the Romanian web. The term 2.0 nowadays refers to the change brought on the Internet by a sum of social, economical, technological tendencies which have transformed and keep on transforming it into a distinctive environment, of great impact, characterized by the participation of the users, its openness and the network effects. The content of the term remains evolutive, the main characteristic of Web 2.0 being novelty, the ability to continuously adapt and reshape depending on the users' needs and the technological discoveries in the field.

On the background of a constant and accelerated growth in the number of users, the Web 2.0 technologies create a new dialogue between the government and the citizens which is worth exploiting at full capacity by the City Halls. The environment in itself can renew and reshape the message, making it attractive, in its form, for categories of addressees which were previously left aside – for example, the digital native generation of citizens, who are no longer resonating to traditional methods of decision-making – see Jeder, 2013, Prensky, 2001, Guliciuc, 2013, Consoli, 2013. The beginning was already made in other countries – Necula, 2013, mentions the example of the Governor of California, Arnold Schwarzenegger, who is on Twitter with 1.8 million followers.

4. Romanian City Halls in the online environment - a 2012 analysis

In order to assess the Web 2.0 openness of Romanian public administration, over the course of April 2012, we ran a study on the web sites of City Halls in all of the 41 county seats (including Bucharest) in the country. The importance of the analyzed web pages derives from the width of their target audience: they are addressed, directly or indirectly (indirect estimates include underage youth), to approximately 7,872,986 people, which amounts to 37% of the total population numbers. Through this study, we set out to identify the types of deskwork now available to the public online, the form in which information is provided and the methods by the medium of which 24/7 live interaction with citizens is carried out.

4.1. Methods

In the present paper, we take our stand upon the assumption that the impact of ICT, in its Web 2.0 version, on Romanian public administration is a positive one. We reckon that Internet and associated technologies have the potential to renovate the administrative process and to increase citizen satisfaction, even against the backdrop of loitering bureaucracy and closeness. A smoothing trend can be identified in traditional pyramidal organizational bodies, recasting them as networks. This drive (with decades of history in the private sector) is the result of active engagement in the information society, of the outcrop in regards to public private partnerships (PPPs) and of the involvement in various projects. Beyond the build-up of a certain degree of insecurity- see also Petroni and Cloete, 2005, p. 5, network-centered structuring broadens the role of mid level employees by handing them down a sizeable fraction of the decision-making process. This commits institutions to attaching rightful bearing to communication and feedback. These last two elements are all too valuable in public administration: both in cracking back on allegations of excessive bureaucracy (times and often all too just), and in incentivizing employees. Communication networks mirror, to a great extent, the vision institutions have of their public duty, as well as of the targets they set themselves and means to achieve them. Furthermore, by means of ICT, public administration could virtualized its offices, becoming electronically available to all interested beneficiaries.

In completing this study, the following research methods have been used:

1. Observation: we reviewed the web-pages of the 41 City Halls in a determined time-frame (in the course of April 2012). Additionally, we attended ICT project-management meetings in nearby City Halls (in the North-East of the country);
2. Desk review: we requested and analyzed internal service instructions, as well as ICT projects application and approval documentation in respect of all the 41 City Halls;
3. Open interview: we talked over informally to experts in the Project Management department of City Halls in the vicinity about the ICT projects they implemented.

4.2. Research results

Hereinafter, we bring forward the main results of our study.

Electronic Tax Payment systems and other online services. The leading forms of electronic local tax payment systems as identified in the case study are:

1. *Lining up to the Electronic Payment by Bank Transfer National System* (see figure 1.) This is the predominant method of payment, to be found in more than 50% of analyzed City Halls (side glance: some of the websites included in this category do not indicate that payment through ghiseul.ro is actually available). EPNS supports property tax, as well any other form of tax, penalty or surcharge levied by the public bodies enlisted in the system. As of May 2012, 40 public bodies (of all sorts of sizes) had already enlisted, with a further 36 in the testing phase, out of a total of 3200 beneficiaries. EPNS lays out a ramie: users get the choice between password check and non-authenticated payment. The latter form has no requirement for login details (username and password). On the downside, this method does not provide real-time outstanding balance check or transaction history. Consequently, payment is restricted to taxes in quantum known to the user. The password check section requires individual login details for each user. These are automatically generated at the time when the public body in question joins the system and it is in its responsibility to see to their secure delivery to each citizen in a sealed envelope. However, a fraction of City Halls still run their own „old” applications simultaneously to the new system. To all appearances (and according to Vasilache, 2012), this is what accounts for the low number of enrolled City Halls as well as for the reduced volume - 16007 in number and monetary value-3.2 million RON of transactions.

The interest for the EPNS payment differs greatly from one City Hall to another. According to NoCash, 2012, 1, the most active institutions are situated in Bucharest, which covers 66% from the number of transactions

and 63% from the volume of payments. The City Hall from Tîrgu-Mureş – the only one in the country which undertook a promoting campaign and sent the credentials (user and password) to the tax payers – is in the top of the first 3 institutions as regards the transactions in 2012, with over 1.400 transactions in a value of approximately 390.000 lei.

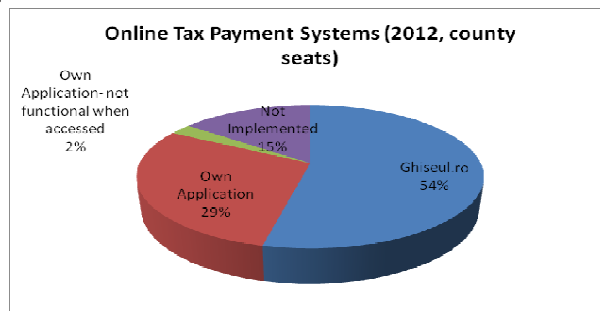


Fig. 1 Online Tax Payment Systems (2012, in county seats)

Our observations, correlated to those made by Croitoriu (2012), conclude that in this case, as in many others, the man changes the places. The platform is made available free of charge to all the City Halls, its administration is centralized and thus the City Hall is not supposed to pay for any internal application. Nevertheless, under these equal conditions from the very beginning, some mayors decide to promote it (see the case of Targu Mures), while others prefer to charge the tax payers for the access, transferring the bank fees to their accounts.

2. *Web applications developed on a public body's own account*, miscellaneous configurations - most often such web sites contain branched menus enabling users to acquaint with the City Hall's operations in addition to accessing payment related links. Authentication ranges from entering one's Personal Numerical Code (PNC) or a Unique Registration Code (URC) to randomly generated credentials that users can claim online or by visiting the relevant inquiry office. Based on the reckoning of the City Hall employees that we interviewed, tax-payers still choose physical pay-desks over web-based applications to clear up their levies to local authorities. Nevertheless, the trend for online tax payments is ascending. In a few of the cases we analyzed, electronic tax payment systems either do not exist or are not functional. The associated shares are displayed in figure 2.

Another form of electronic payment which comes up, although very timidly, in the relationship between City Halls and citizens, is that which uses the text messages for the parking services. It was adopted by only 4 City Halls out of the 41 studied by us. Still, in the case of the City Halls under study, the number of citizens who use the payment system for the parking by text message increases monthly by 20-30% - according to NoCash (2012,2).

Excluding electronic tax payment systems, online services available on City Hall websites go as follows:

- downloading various standard blank forms (scanned as PDFs or generated as Microsoft Word documents). This is an increasingly popular service, available on all accessed web pages with one exception (the City Hall in Miercurea Ciuc, www.szereda.ro). Forms differ in pattern from one City Hall to another, but serve the same function: minimizing inherent delays in respect of physical pay desks (time is saved by filling in relevant forms ahead of time). However, we reckon this is not a method of utmost efficiency - citizens are still required to fill in the forms by hand, to personally deliver them to the City Hall and, obviously, public servants there still need to devote time and resources to poach the data into the information system. In some cases, such forms are altogether bootless- either on account of outdated information or from operating solely as specimens (inlaid with inerasable colorful letters);
- search engines to dig up miscellaneous documents, usually previously filed petitions and pending permits. This amenity is found on at least 30% of the analyzed web-pages;
- scheduling levees, marriages, document pick-ups etc., available on at least 21% of websites;

- filling online petitions - (accessible on at least 10% of pages).

Regarding the **types of available information**, the bulk of information is displayed in hypertext format, accessible through navigation tools that vary from site to site. The ubiquitous photo galleries contain mostly images illustrative of the city in question. Just 20% of websites feed video content, while only one City Hall (Târgu Mureş) administers its own YouTube channel. Some of the City Halls upload live broadcasts of city council meetings. 30% of websites feature live webcams whilst 70% lay out interactive maps. In the majority of cases, the latter are designed by map2web. The City Hall of Oradea features interesting tridimensional map of the old city on its page.

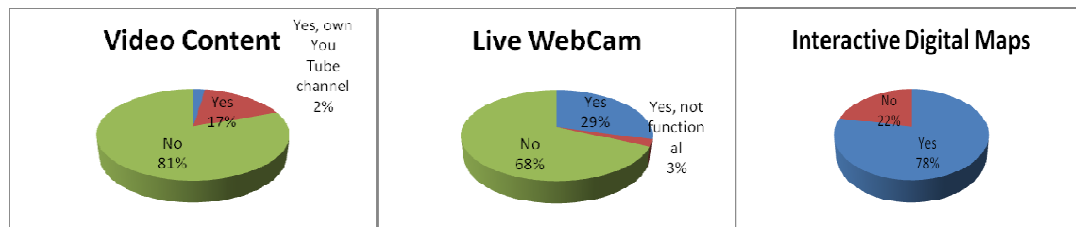


Fig. 2 The respective shares of websites featuring video content, live broadcasts and interactive digital maps

Through our analysis, we identified the following **forms of user interaction**:

- forum - present in 34% of cases. Regrettably, not all are well kept- part of them are out-of-date (albeit questions are being raised, the only reactions come from equally helpless users), whilst others burst with spam.
- online contact form for suggestions and complaints;
- contact menu - the ability to send messages either directly via the website or by e-mail (all pages provide an e-mail address in the contact menu, but the chart in figure no. 5 only displays the ones that rest solely on this method of communication);
- link to the www.domnuleprimar.ro page, a web portal designed to connect citizens with the Mayors of the enlisted cities and towns.

Talking about the **Social Media exposure**, on the strength of our case study, we noted that City Halls are rather absent from the Web 2.0-specific social environment (Facebook, Twitter, YouTube etc.) – a fair finding evidenced by the chart in Figure no. 3 Picking out Facebook as an example, the outcomes corroborate to a certain extent the assessments of the web pages themselves: official up-to-date Facebook pages enjoy a soaring number of “Likes”. Other pages receive limited appraisal-they have either emerged automatically as a result of users assigning them as their workplace (picking up merely accidental “Likes” on account of the lack of content) or peeped up as personal accounts, often outdated and impervious to the public- far aloof from the expectations of page acting for a public body.

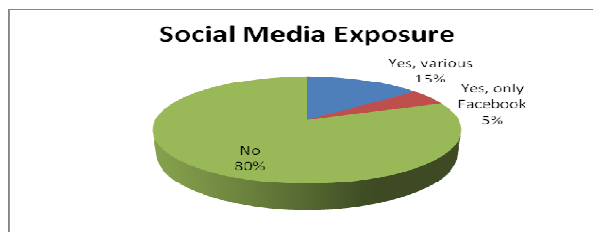


Fig. 3 City Hall exposure to social media

The colossal disparity between the number of inhabitants assigned to a particular City Hall and the amount of Facebook Likes the page of the local authority in question accumulates speaks for itself. In our view, public administration bodies ought to consider enlarging the scope of their citizen interaction by enhanced exposure to the increasingly popular social media channel. We set off on a little experiment: we established what looked like a genuine official Facebook account for a particular City Hall. Within just a week, it chalked up 86 Likes, 40 messages and countless earnest comments.

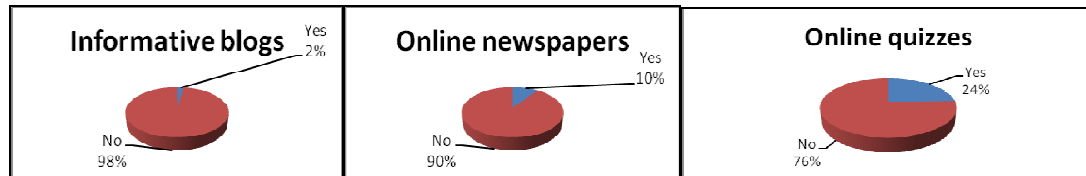


Fig. 4 City Hall use of informative blogs, online newspapers, online quizzes. Source: Authors' own study

We take notice of the availability of **various other online** services on the pages we have analyzed- such as public opinion polling questionnaires, informative blogs, e-publications (some of which are tailored to mobile devices-Timisoara), virtual tours etc.

5. Conclusions

After analyzing statistical data and based on previous research regarding the usage of Web 2.0 technologies by the citizens, as well as studying pertinent research literature in this field of activity we have noticed that, even if the development of new ICT is very promising, this trend is not fully exploited by Romanian City Halls. Developing high quality applications is to be addressed through a model based on understanding citizen perception and expectations – and the Web 2.0 channels must be taken into consideration as a first step on this way. In our opinion, the “ten-strike” formula to improving government-citizen relations through Web pages runs as follows: proper financing, steady and coherent management of innovative action and engaging in public-sector partnerships with similar bodies. By constantly boosting these parameters, City Halls will be able to transform themselves from today’s vacuum flasks into tomorrow’s collaborative network hubs. This free transfer of knowledge has the potential to generate innovative public-sector support and, implicitly, enhanced amenities to citizens. Nowadays, when top-down solutions from the Romanian government do not seem to have proven their efficiency, Web 2.0 technologies allow the citizens and the mayors to build together bottom-up solutions. Our study presents in opposition to the wide interest manifested by the Romanians for the Web 2.0 technologies, a certain interest presented by the mayors in these technologies. Keeping to the same principle presented above that the man changes the place, we have noticed that there are innovating mayors and employees in the public sector, persons who have adapted the new technologies to the old processes in their institution, changing the rhythm and costs and making them more attractive to new categories of citizens. Our conclusion is that even though we cannot speak about a mature and open approach of Web 2.0 in the Romanian City Halls, the ice has been broken. The use can increase in collaboration with the academic environment and the private sector, in a dialogue with the citizens as main beneficiaries of their efforts and by promoting the examples of good practice.

Research limitations and further directions

Data were obtained at the level of year 2012 and this paper includes only simple statistical analysis. But we consider that our research is an important step forward to evaluate the Romanian City Halls openness to Web 2.0 technologies. Starting with this research and another one that we have prepared with regard to the behavior and expectations of digital native citizens, we intend to further develop a set of recommendations public administration should follow when thinking about launching or proper using of Social Media channels.

References

- Chase-Dunn, C., 1999, Globalization: A World-System Perspective, *Journal of World-System Research*, V, 2, pp. 189-215.
- Comisia Europeană, 2010, O Agendă digitală pentru Europa, Bruxelles.
- Consoli, D., 2013, A survey on the use of social networks by digital native students, *Proceedings of SMART 2013. Social Media in Academia: Research and Teaching, International Conference*, Bacău, România, June 6-9, 2013, Supplement of the journals "BRAIN. Broad Research in Artificial Intelligence and Neuroscience" (ISSN 2067-3957) and "BRAND. Broad Research in Accounting, Negotiation, and Distribution" (ISSN 2067-8177), pp. 204-212.
- Croitoriu, D., 2012, Afecțiunea primărilor față de cozile la ghișee, [online], [cit. 2012-10-15] Available at http://www.medierenet.ro/2012/10/18/afectiunea-primariilor-fata-de-cozile-la-ghisee/#.Ulo_km9g_Fs.
- Freeman, C., Louça, F., 2001, *As Time Goes By: From the Industrial Revolutions to the Information Revolution*, Oxford: Oxford University Press.
- Guliciuc, V., 2013, Is there a link between the Social Media and the ancient school of philosophy?, *Proceedings of SMART 2013. Social Media in Academia: Research and Teaching, International Conference*, Bacău, România, June 6-9, 2013, Supplement of the journals "BRAIN. Broad Research in Artificial Intelligence and Neuroscience" (ISSN 2067-3957) and "BRAND. Broad Research in Accounting, Negotiation, and Distribution" (ISSN 2067-8177), pp. 42-48.
- Hall, P., Preston, P., 1988, *The Carrier Wave: New Information Technology and the Geography of Innovation 1846-2003*, London: Unwin Hyman.
- Hertă Gongola, L., 2005, Modelul Societății Informaționale. O abordare sociologică, în Todoran, H. (co-ord.) (2005), *Societatea informațională europeană*, Cluj Napoca: Editura Fundației pentru Studii Europene.
- Huijboom, N. Broek, T., 2011, Open data an interna-tional comparison of strategies, *European Journal of ePractice*, N° 12 March/April [online], Available at http://www.epractice.eu/files/European%20Journal%20epractice%20Volume%2012_4.pdf.
- Lendel, V., Kubina, M., 2010, New Trends in Customer Relationship Management and their Application in Slovak Enterprises, *Trends Economics and Management*, Vol. IV, Issue 06, pp. 19-26.
- Necula, S. C., 2013, Studying the meaning of the Social Media incentives in the academic environment, *Proceedings of SMART 2013. Social Media in Academia: Research and Teaching, International Conference*, Bacău, România, June 6-9, 2013, Supplement of the journals "BRAIN. Broad Research in Artificial Intelligence and Neuroscience" (ISSN 2067-3957) and "BRAND. Broad Research in Accounting, Negotiation, and Distribution" (ISSN 2067-8177), pp. 156-160.
- NoCash, 2012, 1, Platforma ghiseul.ro a înregistrat plăți de 884.000 Euro în primele 18 luni de la relan-sare, [online], [cit. 2012-10-12] Available at <http://www.nocash.info.ro/2012/10/platforma-ghiseul-ro -plati-de-884-000-euro-in-primele-18-luni-de-la-relansare/>.
- NoCash, 2012, 2, Crește numărul primăriilor care introduc plata parcarii prin SMS, [online], [cit. 2012-10-12] Available at <http://www.nocash.info.ro/2011/11/creste-numarul-primariilor-care-introduc-plata-parcarii-prin-sms/>.
- Popescu, D., 2012, Process Innovation in the Romanian Public Administration. Observations And Recommendations, in „Lucrări Științifice. Seria Agronomie”, vol. 55, nr. 1, Editura „Ion Ionescu de la Brad” Iași, pp. 239-243 .
- Prensky, M., 2001, Digital natives, digital immigrants, in "On The Horizon", Vol. 9 No. 5, pp. 1-6.
- Radu, L. D., 2013, The influence of Social Media on Green IT, *Proceedings of SMART 2013. Social Media in Academia: Research and Teaching, International Conference*, Bacău, România, June 6-9, 2013, Supplement of the journals "BRAIN. Broad Research in Artificial Intelligence and Neuroscience" (ISSN 2067-3957) and "BRAND. Broad Research in Accounting, Negotiation, and Distribution" (ISSN 2067-8177), pp. 213-219.
- RITI, 2003, TeleCentrele, o modalitate de a îndeplini obligațiile legate de Serviciul Universal, [online], [cit. 2012-06-12] Available at <http://www.riti-internews.ro/ro/telecentre.htm>.
- Rotar, C., Todoran, H., 2005, Multiplele dimensiuni ale societății informaționale, in Todoran, H. (coord.) *Societatea informațională europeană*, Cluj Napoca: Editura Fundației pentru Studii Europene.
- Țugui, A., Șiclovan, A., 2013, Social Media interaction via Cloud Computing in Romania, *Proceedings of SMART 2013. Social Media in Academia: Research and Teaching, International Conference*, Bacău, România, June 6-9, 2013, Supplement of the journals "BRAIN. Broad Research in Artificial Intelligence and Neuroscience" (ISSN 2067-3957) and "BRAND. Broad Research in Accounting, Negotiation, and Distribution" (ISSN 2067-8177), pp. 239-247.
- Țugui, A., Frâncu, C., 2013, Deculturation through Social Media in developing countries? The case of Romania, *Proceedings of SMART 2013. Social Media in Academia: Research and Teaching, International Conference*, Bacău, România, June 6-9, 2013, Supplement of the journals "BRAIN. Broad Research in Artificial Intelligence and Neuroscience" (ISSN 2067-3957) and "BRAND. Broad Research in Accounting, Negotiation, and Distribution" (ISSN 2067-8177), pp. 246-254.
- Urbancová, H., Königová, M., Urbanec, J., Fejfar, J., 2012, The influence of new management disciplines on the innovation in organizations, *Trends Economics and Management*, Vol. VI, Issue 10, pp. 105-115.
- Vasilache, A., 2012, Situația în Ghiseul.ro, de la lansarea din martie 2011 până în prezent: Doar 40 de primării permit plata online a taxelor/Valoarea tranzacțiilor a depășit 3,2 milioane lei, [online], [cit. 2012-06-15] Available at <http://economie.hotnews.ro/stiri-telecom-12786576-situatia-ghiseul-lansarea-din-martie-2011-pana-prezent-doar-40-primarii-permit-plata-online-taxelor-valoarea-tranzactiilor-depasit-3-2-milioane-lei.htm>.
- WallStreet, 2010, ANCOM renunță la telecentre și vrea să crească accesul la comunicații în gospodării, [online], [cit. 2012-06-10] Available at <http://www.wall-street.ro/articol/IT-C-Tehnologie/93940/ANCOM-renunta-la-telecentre-si-vrea-sa-creasca-accesul-la-comunicatii-in-gospodarii.html>.
- Wifong, J., Seger, T., 1997, *Taking Your Business Global*, New Jersey: Career Press, Franklin Lane.